OIPE JC193 MAY 27 2003 PATENT & TRADEMARK OFFICE

05-28-03

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Due Date: May 27, 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Neelakantan Sundaresan	Examiner:	Rachna Singh
Serial No.:	09/191,281	Group Art Unit:	2176
Filed:	November 12, 1998	Docket:	AM998157 (KQT)
Title:	GENERATING VISUAL EDITORS FROM SCHEMA DESCRIPTIONS		

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Name: Isabell Ogata

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Dear Sir:

We are transmitting herewith the attached:

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GATES & COOPER LLP
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By: _____
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OIPE JC133
MAY 27 2003
PATENT & TRADEMARK OFFICE

Due Date: May 27, 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
Inventor: Neelakantan Sundaresan	)	Examiner: Rachna Singh
Serial #: 09/191,281	)	Group Art Unit: 2176
Filed: November 12, 1998	)	Appeal No.: _____
Title: GENERATING VISUAL EDITORS FROM SCHEMA DESCRIPTIONS	)	

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BRIEF OF APPELLANT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 C.F.R. §1.192, Appellant's attorney hereby submits the Brief of Appellant, in triplicate, in response to the final rejection in the above-identified application as set forth in the Office Action dated December 27, 2002.

Please charge Deposit Account No. 09-0441 of IBM Corporation, assignee of the present application, in the amount of $320.00 to cover the required filing fee, as set forth under 37 C.F.R. §1.17(c). Also, please charge any additional fees or credit any overpayments to Deposit Account No. 09-0441.

I. REAL PARTY IN INTEREST

The real party in interest is IBM Corporation, the assignee of the present application.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences for the above-referenced patent application.

III. STATUS OF CLAIMS

Claims 1-69 are pending in the application.

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Claims 1-3, 5-7, 9-10, 15-16, 20, 22-26, 28-30, 32-33, 38-39, 47-49, 51-53, 55-56, 61-62, 66, and 68-69 were rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0, http://www.webreference.com/html/watch/xmetal (XMetal 1.0), in view of Alschuler, "SoftQuad previews XMetal Prototype," May 1998, The Seybold Report on Internet Publishing, Vol. 2, No. 9 (Alschuler).

Claims 4, 8, 21, 27, 31, 44, 50, 54, and 67 were rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0 in view of Alschuler, as applied to claims 1, 24, and 47, and further in view of Softquad HotMetalPro 3.0 User's Manual, 1996, pages 77-83 (Softquad).

Claims 11-14, 34-37, and 57-60 were rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0 in view of Alschuler, as applied to claims 1, 24, and 47, and further in view of W3C Extensible Markup Language (XML) 1.0, 2/1998, http://www.w3.org/TR/1998/REC-sml-19980210 (W3C).

Claims 17-19, 40-42, and 63-65 were rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0, in view of Alschuler as applied to claims 1, 24, and 47, and further in view of Patent Application No. 09/191,281, Background of the Invention, 11/12/98 ('281).

IV. STATUS OF AMENDMENTS

No amendments were made to the claims subsequent to the final Office Action.

V. SUMMARY OF THE INVENTION

Appellant's independent claims 1, 23 and 47 are generally directed to a method, apparatus and article of manufacture for generating a document editor. Claim 1 is representative, and comprises:

(a) generating one or more class specifications in the computer from a schema for the document, wherein the class specifications identify user interface components of the editor corresponding to entities defined in the schema; and

(b) instantiating one or more objects in the computer from the class specifications to invoke the editor.

With regard to the rejected claims, refer to the specification as follows:

(a) at page 6, lines 5-15;

(b) at page 8, lines 9-18;

(c) at page 9, line 1 through page 10, line 13 and in FIG. 1 as reference numbers 100-118; and

(d) at page 10, line 15 through page 26, line 8 and in FIGS. 2-7 as reference numbers 104, 112, 116, 188 and 200-206.

VI. ISSUES PRESENTED FOR REVIEW

1. Whether claims 1-3, 5-7, 9-10, 15-16, 20, 22-26, 28-30, 32-33, 38-39, 47-49, 51-53, 55-56, 61-62, 66, and 68-69 are obvious under 35 U.S.C. §103(a) over XMetal 1.0, http://www.webreference.com/html/watch/xmetal (XMetal), in view of Alschuler, "SoftQuad previews XMetal Prototype," May 1998, The Seybold Report on Internet Publishing, Vol. 2, No. 9 (Alschuler).

2. Whether claims 4, 8, 21, 27, 31, 44, 50, 54, and 67 are obvious under 35 U.S.C. §103(a) over XMetal 1.0 in view of Alschuler, as applied to claims 1, 24, and 47, and further in view of Softquad HotMetalPro 3.0 User's Manual, 1996, pages 77-83 (Softquad).

3. Whether claims 11-14, 34-37, and 57-60 are obvious under 35 U.S.C. §103(a) over XMetal 1.0 in view of Alschuler, as applied to claims 1, 24, and 47, and further in view of W3C Extensible Markup Language (XML) 1.0, 2/1998, http://www.w3.org/TR/1998/REC-sml-19980210 (W3C).

4. Whether claims 17-19, 40-42, and 63-65 are obvious under 35 U.S.C. §103(a) over XMetal 1.0, in view of Alschuler as applied to claims 1, 24, and 47, and further in view of Patent Application No. 09/191,281, Background of the Invention, 11/12/98 ('281).

VII. GROUPING OF CLAIMS

The rejected claims stand or fall together.

VIII. ARGUMENT

In paragraphs (3)-(4) of the Office Action, claims 1-3, 5-7, 9-10, 15-16, 20, 22-26, 28-30, 32-33, 38-39, 47-49, 51-53, 55-56, 61-62, 66, and 68-69 were rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0, http://www.webreference.com/html/watch/xmetal (XMetal 1.0), in view of Alschuler, "SoftQuad previews XMetal Prototype," May 1998, The Seybold Report on Internet Publishing, Vol. 2, No. 9 (Alschuler). In paragraph (5) of the Office Action, claims 4, 8, 21, 27, 31, 44, 50, 54, and 67 were rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0 in view of Alschuler, as applied to claims 1, 24, and 47, and further in view of Softquad HotMetalPro 3.0 User's Manual, 1996, pages 77-83 (Softquad). In paragraph (6) of the Office Action, claims 11-14, 34-37, and 57-60 are rejected under 35 U.S.C. §103(a) as being unpatentable over XMetal 1.0 in view of Alschuler, as applied to claims 1, 24, and 47, and further in view of W3C Extensible Markup Language (XML) 1.0, 2/1998, http://www.w3.org/TR/1998/REC-sml-19980210 (W3C). In paragraph (7) of the Office Action, claims 17-19, 40-42, and 63-65 were rejected as being unpatentable under 35 U.S.C. §103(a) over

XMetal 1.0, in view of Alschuler as applied to claims 1, 24, and 47, and further in view of Patent Application No. 09/191,281, Background of the Invention, 11/12/98 ('281).

Appellant's attorney respectfully traverses these rejections. Specifically, Appellant's attorney asserts that XMetal 1.0 is not a prior art reference against the claims of the present application.

Appellant's attorney notes that the printed copy of XMetal 1.0 provided with the Office Action includes the date "6/27/02" at the bottom of the page, which apparently indicates the date that the article was printed by the Office. However, the XMetal 1.0 article includes a copyright date of 2002, as noted on the second printed page of the reference. Further, the XMetal 1.0 article includes a "Created" date of "October 20, 1999" and "Revised" date of "October 28, 1999", as noted on the fifth printed page of the reference. Finally, Appellants' attorney reviewed the actual pages at the URL provided by the Office Action for the XMetal 1.0 reference, confirmed the Copyright, Created and Revised dates on the actual pages, and determined there were no other dates in the reference.

Since this application has a priority date of November 12, 1998, the XMetal 1.0 reference is not prior art to the present application. Consequently, Appellant's attorney submits that the rejections are improper.

The Examiner, on the other hand, asserts that the XMetal 1.0 reference, although dated October 1999, is a disclosure of SoftQuad's Xmetal prototype available in May 1998 as disclosed by the Alschuler reference. The Examiner cites Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991) as supporting these assertions.

However, this case is inapplicable.. In Continental Can Co. USA, the Federal Circuit stated:

> "To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Id. (Emphasis added).

No such evidence has been provided by the Examiner.

It is apparent that the Examiner believes that no changes were made to the XMetal product between May 1998 (the date of the Alschuler reference) and October 1999 (the date of the XMetal 1.0 reference). However, the Examiner provides no evidence, facts or analysis to support such a conclusion. Consequently, Appellant's attorney submits that there is no reasonable basis for the Examiner's belief that what was described in the XMetal 1.0 reference in October 1999 was necessarily present in the Alschuler reference in May 1998.

IX. CONCLUSION

In light of the above arguments, Appellant's attorney respectfully submits that the cited references do not anticipate nor render obvious the claimed invention. More specifically, Appellant's claims recite novel physical features which patentably distinguish over any and all references under 35 U.S.C. §§ 102 and 103. As a result, a decision by the Board of Patent Appeals and Interferences reversing the Examiner and directing allowance of the pending claims in the present application is respectfully solicited.

Respectfully submitted,

Neelakantan Sundaresan

By his attorneys,

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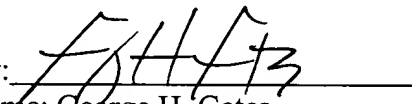
Date: May 27, 2003

By: 
Name: George H. Gates
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APPENDIX

1. A computer-implement method for generating a document editor, comprising:

(a) generating one or more class specifications in the computer from a schema for the document, wherein the class specifications identify user interface components of the editor corresponding to entities defined in the schema; and

(b) instantiating one or more objects in the computer from the class specifications to invoke the editor.

2. The method of claim 1 above, wherein the documents are eXtensible Markup Language (XML) documents and the schemas are XML schemas.

3. The method of claim 2 above, wherein the schemas are selected from a group including Document Type Definition (DTD) schemas, Document Content Definition (DCD) schemas, and XSchema schemas.

4. The method of claim 1 above, wherein the class specifications comprise Java class specifications.

5. The method of claim 1 above, wherein the generating step further comprises converting an entity defined in the schema into the class specification.

6. The method of claim 1 above, wherein the generating step further comprises the step of generating the class specifications in the computer from the schemas and one or more optional customization specifications.

7. The method of claim 6 above, wherein the optional customization specifications define what class names to generate for each entity defined in the schema.

8. The method of claim 1 above, wherein the class specifications include one or more specifications selected from a group comprising (1) a visual editor class specification, (2) a content implementation class specification, and a handler class specification.

9. The method of claim 1 above, further comprising mapping the entities defined in the schema to components of the editor.

10. The method of claim 1 above, wherein the entities are selected from a group comprising elements and attributes of elements.

11. The method of claim 10 above, wherein the attribute has a declaration selected from a group comprising mandatory, optional, and fixed value.

12. The method of claim 11 above, further comprising accepting user input for attributes having a mandatory declaration.

13. The method of claim 11 above, further comprising accepting user input for attributes having an optional declaration.

14. The method of claim 11 above, further comprising entering values from the schema for attributes having a fixed value declaration.

15. The method of claim 10 above, further comprising validating values entered for the attribute.

16. The method of claim 1 above, wherein the class specifications include at least one function for validating at least one entity defined in the schema.

17. The method of claim 1 above, wherein the generating step further comprises the step of generating the class specifications from a regular expression language comprising one or more declarations of elements enclosed within an element.

18. The method of claim 17 above, wherein the regular expression language includes one or more regular expression operators selected from a group comprising:

(1) a "zero or more" operator,

(2) a "one or more" operator,

(3) a "one or the other" operator,

(4) a "one followed by the other" operator,

(5) a "zero or one" operator,

(6) a "grouping" operator, and

(7) an "any" operator.

19. The method of claim 18 above, wherein the class specifications define one or more widgets that are associated with each of the operators.

20. The method of claim 1 above, wherein the class specifications define at least one widget associated with an entity in the schema.

21. The method of claim 1 above, further comprising identifying specific widget implementations for use with the editor.

22. The method of claim 1 above, further comprising customizing the editor for use with different regular expression operators.

23. The method of claim 1 above, further comprising attempting to solve correctness, optimization, or aesthetics related issues when generating the visual editor from the schema.

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24. A computer-implemented apparatus for generating a document editor, comprising:

(a) a computer; and

(b) an editor maker, executed by the computer, for generating one or more class specifications in the computer from a schema for the document, wherein the class specifications identify user interface components of the editor corresponding to entities defined in the schema, and for instantiating one or more objects in the computer from the class specifications to invoke the editor.

25. The apparatus of claim 24 above, wherein the documents are eXtensible Markup Language (XML) documents and the schemas are XML schemas.

26. The apparatus of claim 25 above, wherein the schemas are selected from a group including Document Type Definition (DTD) schemas, Document Content Definition (DCD) schemas, and XSchema schemas.

14-23

27. The apparatus of claim 24 above, wherein the class specifications comprise Java class specifications.

28. The apparatus of claim 24 above, wherein the means for generating further comprises means for converting an entity defined in the schema into the class specification.

29. The apparatus of claim 24 above, wherein the means for generating further comprises means for generating the class specifications in the computer from the schemas and one or more optional customization specifications.

30. The apparatus of claim 29 above, wherein the optional customization specifications define what class names to generate for each entity defined in the schema.

31. The apparatus of claim 24 above, wherein the class specifications include one or more specifications selected from a group comprising (1) a visual editor class specification, (2) a content implementation class specification, and a handler class specification.

32. The apparatus of claim 24 above, further comprising means for mapping the entities defined in the schema to components of the editor.

33. The apparatus of claim 24 above, wherein the entities are selected from a group comprising elements and attributes of elements.

34. The apparatus of claim 33 above, wherein the attribute has a declaration selected from a group comprising mandatory, optional, and fixed value.

35. The apparatus of claim 34 above, further comprising means for accepting user input for attributes having a mandatory declaration.

36. The apparatus of claim 34 above, further comprising means for accepting user input for attributes having an optional declaration.

37. The apparatus of claim 34 above, further comprising means for entering values from the schema for attributes having a fixed value declaration.

38. The apparatus of claim 33 above, further comprising means for validating values entered for the attribute.

39. The apparatus of claim 24 above, wherein the class specifications include at least one function for validating at least one entity defined in the schema.

40. The apparatus of claim 24 above, wherein the means for generating further comprises means for generating the class specifications from a regular expression language comprising one or more declarations of elements enclosed within an element.

41. The apparatus of claim 40 above, wherein the regular expression language includes one or more regular expression operators selected from a group comprising:

(1) a "zero or more" operator,

(2) a "one or more" operator,

(3) a "one or the other" operator,

(4) a "one followed by the other" operator,

(5) a "zero or one" operator,

(6) a "grouping" operator, and

(7) an "any" operator.

42. The apparatus of claim 41 above, wherein the class specifications define one or more widgets that are associated with each of the operators.

43. The apparatus of claim 24 above, wherein the class specifications define at least one widget associated with an entity in the schema.

44. The apparatus of claim 24 above, further comprising means for identifying specific widget implementations for use with the editor.

45. The apparatus of claim 24 above, further comprising means for customizing the editor for use with different regular expression operators.

46. The apparatus of claim 24 above, further comprising means for attempting to solve correctness, optimization, or aesthetics related issues when generating the visual editor from the schema.

47. An article of manufacture embodying logic for performing a method for generating a document editor for use in an object-oriented computer system, the method comprising the steps of:

(a) generating one or more class specifications from a schema for the document, wherein the class specifications identify user interface components of the editor corresponding to entities defined in the schema; and

(b) instantiating one or more objects from the class specifications to invoke the editor.

48. The method of claim 47 above, wherein the documents are eXtensible Markup Language (XML) documents and the schemas are XML schemas.

49. The method of claim 48 above, wherein the schemas are selected from a group including Document Type Definition (DTD) schemas, Document Content Definition (DCD) schemas, and XSchema schemas.

50. The method of claim 47 above, wherein the class specifications comprise Java class specifications.

51. The method of claim 47 above, wherein the generating step further comprises converting an entity defined in the schema into the class specification.

52. The method of claim 47 above, wherein the generating step further comprises the step of generating the class specifications in the computer from the schemas and one or more optional customization specifications.

53. The method of claim 52 above, wherein the optional customization specifications define what class names to generate for each entity defined in the schema.

54. The method of claim 47 above, wherein the class specifications include one or more specifications selected from a group comprising (1) a visual editor class specification, (2) a content implementation class specification, and a handler class specification.

55. The method of claim 47 above, further comprising mapping the entities defined in the schema to components of the editor.

56. The method of claim 47 above, wherein the entities are selected from a group comprising elements and attributes of elements.

57. The method of claim 56 above, wherein the attribute has a declaration selected from a group comprising mandatory, optional, and fixed value.

58. The method of claim 57 above, further comprising accepting user input for attributes having a mandatory declaration.

59. The method of claim 57 above, further comprising accepting user input for attributes having an optional declaration.

60. The method of claim 57 above, further comprising entering values from the schema for attributes having a fixed value declaration.

61. The method of claim 56 above, further comprising validating values entered for the attribute.

62. The method of claim 47 above, wherein the class specifications include at least one function for validating at least one entity defined in the schema.

63. The method of claim 47 above, wherein the generating step further comprises the step of generating the class specifications from a regular expression language comprising one or more declarations of elements enclosed within an element.

64. The method of claim 63 above, wherein the regular expression language includes one or more regular expression operators selected from a group comprising:

(1) a "zero or more" operator,

(2) a "one or more" operator,

(3) a "one or the other" operator,

(4) a "one followed by the other" operator,

(5) a "zero or one" operator,

(6) a "grouping" operator, and

(7) an "any" operator.

65. The method of claim 64 above, wherein the class specifications define one or more widgets that are associated with each of the operators.

66. The method of claim 47 above, wherein the class specifications define at least one widget associated with an entity in the schema.

67. The method of claim 47 above, further comprising identifying specific widget implementations for use with the editor.

68. The method of claim 47 above, further comprising customizing the editor for use with different regular expression operators.

69. The method of claim 47 above, further comprising attempting to solve correctness, optimization, or aesthetics related issues when generating the visual editor from the schema.